

**Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services**

STATEMENT OF BASIS

**Rubicon LLC
Rubicon LLC - Geismar Plant
Geismar Ascension Parish, Louisiana
Agency Interest Number: 1468
Activity Number: PER20090017
Proposed Permit Number: 2010-V1**

I. APPLICANT

Company:

Rubicon LLC - Geismar Plant
PO Box 517
Geismar, Louisiana 70734-0517

Facility:

Polyols Plant
9156 Hwy 75
Geismar, Ascension Parish, Louisiana
Latitude 30 Deg 12 Min 05 Sec
Longitude 91 Deg 0 Min 41 Sec

II. FACILITY AND CURRENT PERMIT STATUS

The Rubicon facility is composed of a number of chemical manufacturing plants and has been in operation since 1966. Currently, the Polyols Plant operates under Permit No. 2010-V0, issued December 28, 2004 and Administrative Amendment, issued April 18, 2005.

Rubicon LLC - Geismar Plant is a designated Part 70 source. Several Part 70 permits have been issued to the operating units within the Geismar. These include:

Permit No.	Unit or Source	Date Issued
2261-V3	Aniline Complex	July 9, 2008
2391-V9	MDI Plant	September 17, 2009
2010-V0	Polyols Plant	December 28, 2004
2278-V1	Reduction Plant	December 19, 2008
2420-V1	Offsites Area	December 21, 2007
3037-V1	Maleic Anhydride Plant	August 13, 2008

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III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application dated June 24, 2009 was submitted requesting a Part 70 operating permit renewal/modification.

Project

Rubicon requested a renewal/modification of the Part 70 Operating Permit No. 2010-V0 as required by Louisiana Administrative Code (LAC) 33:III.507.E. In this renewal/modification, Rubicon proposes to include following changes:

- Change of tank service for Tank MS-7071 (an insignificant activity) from Dibasic Ester Storage to Fyrol PCF service;
- Update fugitive emissions (Point Source UP, Fug11) based on fugitive emissions calculation methodology;
- Update DELA Storage Tank MS-7059 (Point source TG, EQT93) based on the most recent EPA TANKS program (Version 4.0.9D); and
- Add three insignificant activities: IA-5 - Acid Soap Tote, IA-6 - Caustic Soap Tote and IA-7 - Waste Polyols Tote.

Proposed Permit

Permit 2010-V1 will be the the renewal/modification Part 70 operating permit 2010-V0 for the Polyols Plant.

Permitted Air Emissions

Pollutant	Before	After	Change
PM ₁₀	3.85	3.85	-
SO ₂	0.07	0.07	-
NO _x	30.82	30.82	-
CO	9.92	9.92	-
VOC	10.36	10.36	-
Cl ₂	0.001	0.001	-

VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
2,4-Toluene Diamine	0.02	0.02	-
Diethanolamine	-	0.12	+0.12
Ethylene Glycol	-	0.11	+0.11

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VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant	Before	After	Change
Ethylene Oxide	0.03	0.24	+0.21
Methylene Diphenyl Diisocyanate	0.01	0.05	+0.04
Propylene Oxide	0.32	0.80	+0.48
Total TAP's	0.38	1.34	+0.96
Other VOC	9.90	9.02	-0.88

IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

Applicability and Exemptions of Selected Subject Items

Explanations for the None-Applicability and Exemption are listed in the Section XIII-Explanation for Exemption Status or None-Applicability of a Source of the proposed permit.

Prevention of Significant Deterioration/Nonattainment Review

There are no net emission increases of PSD applicable compounds above the significance level. Therefore, this project is exempted from PSD review.

Streamlined Equipment Leak Monitoring Program

Unit or Plant Site	Program Being Streamlined	Stream Applicability	Overall Most Stringent Program
Polyols Plant	Non HON MACT 40 CFR 63 Subpart H LAC 33:2122 40 CFR 60 Subpart VV 40 CFR 63 Subpart PPP	5% VOTAP 5% VOHAP 10% VOC 10% VOC	40 CFR 63 Subpart H – HON

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MACT Requirements

These regulations define maximum achievable control technology (MACT) standards for stationary source categories of hazardous air pollutants (HAPs). These HAPs are listed in the Clean Air Act Amendments of 1990. Emissions from various sections of the Polyols plant are controlled as required by 40 CFR 63 Subpart PPP which are determined as MACT. Fugitive emissions are controlled according to the streamlined equipment leak, monitoring program which is determined as MACT.

Air Quality Analysis

Emissions associated with the proposed facility were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

Dispersion Model(s) Used: None

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

V. PERMIT SHIELD

This permit does not include a permit shield.

VI. PERIODIC MONITORING

All periodic monitoring is conducted in accordance with state and federal regulations. See Specific Requirement of the draft Part 70 permit renewal and modification for monitoring requirements.

VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

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Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H₂S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of Significant Deterioration of Air Quality”) and D (“Nonattainment New Source Review”).

Nitrogen Oxides (NO_x) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH₄), Ethane (C₂H₆), Carbon Disulfide (CS₂)

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥ 10 tons per year of any toxic air pollutant; ≥ 25 tons of total toxic air pollutants; and ≥ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM₁₀ – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

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Sulfur Dioxide (SO₂) – An oxide of sulfur.

Sulfuric Acid (H₂SO₄) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.